



(43) International Publication Date
9 June 2005 (09.06.2005)

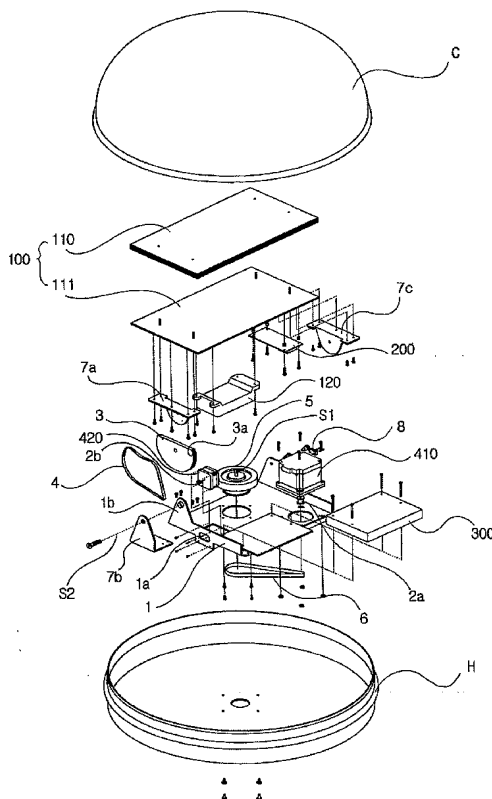
PCT

(10) International Publication Number
WO 2005/053093 A1

- | | | |
|---|------------------------------|--|
| (51) International Patent Classification⁷: | H01Q 3/08 | (72) Inventor; and |
| (21) International Application Number: | PCT/KR2004/000583 | (75) Inventor/Applicant (for US only): PARK, Chan Goo [KR/KR]; 129-603 Hanvit Apartment, 99, Eun-dong, Yuseong-gu, Daejeon 305-755 (KR). |
| (22) International Filing Date: | 17 March 2004 (17.03.2004) | (74) Agent: YOU, Byung Sun ; 610, Mannyun-officetel, 241, Walpyung-dong, Seo-gu, Daejeon 302-282 (KR). |
| (25) Filing Language: | Korean | (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW. |
| (26) Publication Language: | English | |
| (30) Priority Data: | | |
| 10-2003-0085296 | | |
| 27 November 2003 (27.11.2003) | KR | |
| 10-2004-0003631 | 19 January 2004 (19.01.2004) | KR |
| (71) Applicant (for all designated States except US): WI-WORLD CO., LTD [KR/KR]; 63-20 Daewha-dong, Daeduck-gu, Daejeon 306-020 (KR). | | (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), |

[Continued on next page]

(54) Title: IMPROVED ANTENNA SYSTEM FOR TRACKING MOVING OBJECT MOUNTED SATELLITE AND ITS OPERATING METHOD



(57) Abstract: An improved satellite tracking antenna system mounted to a moving object and a method for operating the same detect and track elevation and azimuth angles of a satellite using only two gyro sensors in a two-axis satellite tracking antenna system, and detect and track an azimuth angle of the satellite using only one gyro sensor in a one-axis satellite tracking antenna system. The antenna system detects the satellite position using two gyro sensors, which are mounted to be orthogonal to each other to a planar axis perpendicular to a satellite-directed target point of the antenna, and continuously tracks the satellite position using a calibration algorithm without using additional absolute angle sensors, resulting in simplified system configuration and reduced production costs.



Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *with international search report*